Information Theory in Management of Organizational Hierarchies

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Abstract-
This research paper lays the groundwork for designing a type of optimally secure organizational hierarchy. The following discussion defines how any management structure can be modelled in order to create an optimally secure hierarchy. An optimally secure hierarchy is one in which there exists a prefix-free path to all local leaders and the average depth or hop count for all local leaders is as minimal as possible. Using already existing concepts of source coding and Kraft's Inequality, an optimal hierarchy can be formed which satisfies all necessary constraints. Further, the problem of having more than one class of members in a hierarchy is briefly discussed.